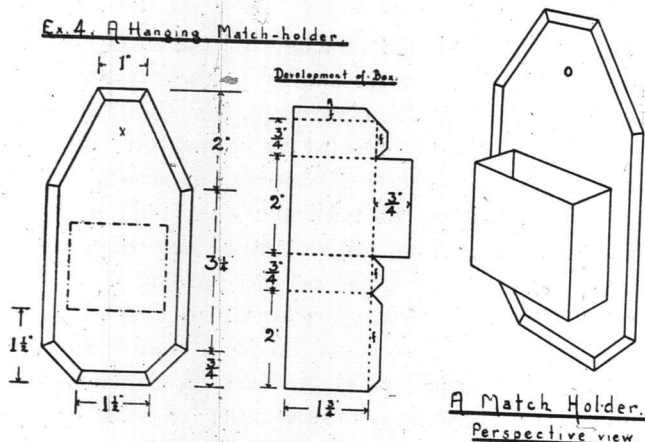


is obtained. This is a practical application of fractions, and will be found useful. After cutting out the support, a strip of binding should be pasted across the two halves, as shown in the diagram, to form a hinge. In fixing the support to the front portion, a tiny drop of liquid glue, scraped carefully over the surface of the small half of the support, will be found more effective than paste. The cloth hinge should be underneath, next to the front portion.

As in the pasting in the elementary course, a wooden toothpick, or a strip of card, will be found to make the best "brush" for glueing.

EXERCISE 4. A Hanging Match-holder.



This makes an interesting model and brings in the "development" or unfolding of a portion of it in the drawing. Both drawings, as shown in the diagram, should be made by the pupils.

Commence by drawing an oblong 6x3 inches, and measure off the corners as shown. Draw the outline and binding lines, and then indicate the position of the small box by dotted lines as in diagram.

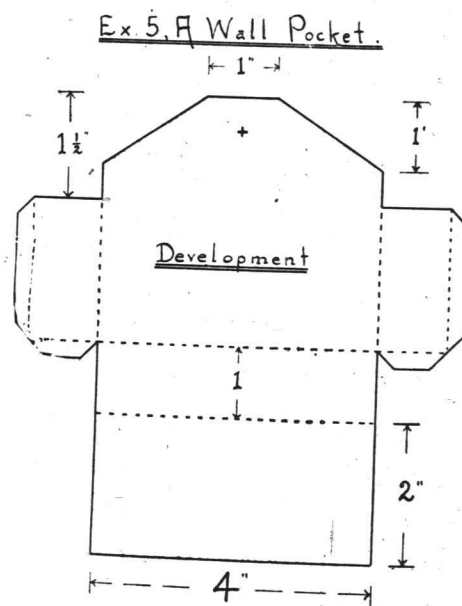
For the second portion of the drawing, the teacher should have a piece cut out, ready to fold up, and show the pupils how the box is formed. Of course, the finished model will already have been inspected by them. The drawing is not difficult, and the dimensions are simple ones. The little pieces marked *ffff* are known as flaps, and are always a quarter of an inch in width. It will be noted that the corners are cut off each flap at 45°. This is to allow of their turning up inside the model, as these little flaps are the means by which the model is held together, a thin film of glue being used upon them for that purpose.

The practical work on the back requires no explanation, being only slightly more difficult than

the previous models. The cutting out of the box, however, involves a new operation, viz., "half-cutting." The dotted lines in the development indicate that the cardboard is to be cut only half way through to allow of its being bent neatly and evenly. It will be found that some mistakes will be made at first—either of cutting too far through, or of not going deep enough. After making a half-cut line, the card must be bent *away* from the cut. Great accuracy is needed in the drawing on the cardboard, or the corners of the box will not meet when folded. After the development is ready for folding, the flap at A should be lightly glued and brought into position behind the large piece at the other end. Hold it between the finger and thumb of either hand, the second finger being pressed inside the box. It will set in a minute or so, and then the three remaining flaps can be glued and the bottom pressed down in position on them. When quite set, the box is glued into position on the back and the model is complete.

The position of the hole in the back for hanging the model by is indicated by the small cross formed by producing the mitre lines until they intersect. As before, a ticket-punch is used for making the hole.

EXERCISE 5. A Small Wall Pocket for Post Cards, etc.



The drawing should be the development as shown in the diagram. As before, the teacher should have two models for teaching this exercise from; one finished, the other unfolded, showing the develop-